

Abstract of Disclosure

The spray powder can be used for the manufacture of a thermally insulating layer which is resistant to high temperatures. A coating of this kind, a so-called TBC, can be produced on a substrate by means of a thermal spraying process. The substrate can already be coated with a single or multilayered part coating, in particular a primer. At least one thermally insulating functional material is used, which on the one hand has a lower thermal conductivity than the substrate and on the other hand forms a chemically and thermally stable phase at high temperatures. The spray powder comprises particles (1) which respectively have an agglomerate-like micro-structure (2) which is formed by a plurality of granules (3) adhering to each other. These granules are made up of the functional material or the functional materials. At least one further component is present made of an additive (4) or a plurality of additives. This further component is distributed finely dispersed on the surfaces (30) of the functional material granules (3) i.e. primarily in the boundary zones. The further component in the given form or in a transformed form exerts a retarding or eliminating effect with regard to sintering compounds, which can form at high temperatures between the functional material granules.

(Fig. 1)